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HAND, FOOT AND MOUTH DISEASE

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Hand, Foot and Mouth Disease (HFMD) is a common illness of infants and children usually caused by a coxsackievirus, however other viruses may also be involved.

- **Coxsackievirus A16** (CA16) is the most common cause of HFMD. Usually there are no complications of HFMD caused by CA16 infection, although aseptic or viral meningitis may occur occasionally.
- Group A coxsackievirus 10 (CA10).
- **Enterovirus 71(EV71**). In addition to HFMD, EV71 may also cause aseptic or viral meningitis, encephalitis, or a polio-like paralysis. EV71 meningitis or encephalitis may, on rare occasions, be fatal.

Epidemiology

The infection occurs mainly in children under 10 years old and mostly in the summer and early fall.

Transmission: The virus is found in the nose and throat discharges during the acute stage of illness and in the feces for several weeks. Aerosol spread is limited to patients with acute respiratory symptoms (due to intercurrent infections). Fecal oral transmission may last for a long time.

Sources of infection are symptomatic patients and asymptomatic infected individuals as well.

No animals are involved, this disease is totally different from foot and mouth disease of cattle.

The incubation period is 3 to 6 days

Clinical Description

After a sudden onset the patient has mild fever, a sore throat and discrete papulo vesicular lesions on the tonsils, the buccal surface of the cheeks, the gums and the side of the tongue. Similar lesions appear on the palms, fingers and soles. These lesions are self limited, they may progress to small ulcers that heal in 7 to 10 days.

These lesions should be differentiated from those of herpes simplex which are deeper and more painful ulcerations usually located in front of the mouth. The disease is benign and symptomatic treatment is recommended.

In south east Asia and in Japan where HFMD is often caused by EV 71 some large-scale HFMD epidemics have caused some deaths among children.

Laboratory Tests

Throat swabs or stool specimens may be used for viral isolation; however, the rash is often distinct enough to permit reliable diagnosis on clinical grounds alone.

Surveillance

HFMD is not a reportable condition. However, since it often occurs in small outbreaks in day care centers, these get reported.

Case Definition

A case is defined as a rash illness that is diagnosed by a physician as HFMD based on clinical symptoms.

Investigation, Intervention

The purpose of investigation is to differentiate HFMD from other infections that result in mouth sores (such as oral herpesvirus), to detect other cases if they occur in a preschool setting, and to implement disease prevention and control measures in those settings.

No intervention is necessary for isolated cases of HFMD.

If an outbreak is reported:
- Upon receipt of a report of HFMD, contact the physician and/or hospital to confirm the diagnosis.
- Attempt to identify the source of infection and other potential cases in a preschool setting.
- In a day care setting, exclusion of infected individuals is not practical nor recommended; however, careful attention should be given to handwashing, especially after handling feces, discharges, or soiled clothing.
- Infections tend to be self-limited. Currently, there is no specific antiviral treatment. Treatment of mild cases is symptomatic, directed at relieving fever, headache, and malaise.

Prevention of transmission is seldom successful because of the reservoir of asymptomatic infections. Patients should be advised
1-To stay away from large crowds,
2-To dispose properly of nose and throat discharges that are infectious,
3-To wash their hands promptly after handling nose and throat discharges and after defecation.

Hospital precaution and isolation: Contact precaution and careful handwashing should be emphasized after handling feces, discharges, or soiled clothing.